The partners in this initiative are engaging members and staff of the participating societies to

- **Increase visibility** of sustainability as an important concept for undergraduate STEM faculty to infuse into introductory STEM courses;

- **Improve access** to STEM education reform practices that increase student learning related to the Big Questions that our students will encounter as citizens, voters, teachers, consumers, and STEM professionals;

- **Promote** the uptake of instructional strategies involving sustainability issues, including the adoption and adaptation of new or refined curricular materials and teaching approaches that focus on real-world problem solving;

- **Collaborate** on the activities that they advance, promote, and encourage; and, in the process, learn from each other about what works and what doesn’t; and

- **Connect and sustain** efforts to pursue common goals to educate for a sustainable future and lead the way for others to join these efforts.

Since its founding in 1989, **Project Kaleidoscope** (PKAL) has been one of the leading advocates in the United States for building and sustaining strong undergraduate programs in the fields of science, technology, engineering, and mathematics (STEM). With an extensive network of nearly 7,000 faculty members and administrators at more than 1,000 colleges, universities, and organizations, PKAL has developed far-reaching influence in shaping undergraduate STEM learning environments that attract and retain undergraduate students. PKAL accomplishes its work by engaging campus faculty and leaders in funded projects, at national and regional meetings, and with publications that are focused on advancing what works in STEM education. PKAL is now an ongoing unit within the Association of American Colleges and Universities (AAC&U). www.aacu.org/pkal/

**The Disciplinary Associations Network for Sustainability (DANS)** seeks to help higher education exert strong leadership in making education, research, and practice for a sustainable society a reality. Sponsored by the US Partnership for Education for Sustainable Development, DANS is a network of over thirty academic disciplinary professional associations. DANS initiatives include (a) professional development for faculty and staff (b) educating the public about sustainability (c) curricula, standards, and tenure requirements to reflect sustainability (d) legislative briefings on what higher education can bring to sustainability related policies; and (e) cross disciplinary projects on education for sustainability. http://dans.aashe.org/

**Mobilizing STEM Education for a Sustainable Future**, launched in 2008 with funding from the National Science Foundation, is pursuing strategies at multiple levels to transform undergraduate STEM education. By more strongly connecting the content and pedagogy of undergraduate STEM courses to real-world challenges (i.e., energy, water, and food), the project aims to both improve student learning and to prepare citizens who are motivated to address these challenges. http://mobilizingstem.wceruw.org/
Why Sustainability?

Our planet and its inhabitants are under unprecedented stress. More than ever before, we need people—citizens, teachers, scientists, engineers, and policy makers—who not only understand the scientific and societal dimensions of the sustainability challenges facing our world, but who also are motivated and equipped to help solve the underlying problems. Solving these problems will require the knowledge, values, and skills to participate in making decisions that uphold the “triple bottom line” of healthier ecosystems, social systems, and economies. Our urgent sustainability challenges offer an interdisciplinary lens through which to engage students in learning while helping them develop the skills they need to contribute to a better society.

Initial Society Partners

American Association of Physics Teachers (AAPT)
American Chemical Society (ACS)
American Institute of Biological Sciences (AIBS)
American Psychological Association (APA)
American Society for Engineering Education (ASEE)
Association for Career and Technical Education (ACTE)
Mathematical Association of America (MAA)
National Association of Biology Teachers (NABT)
National Association of Geoscience Teachers (NAGT)
National Numeracy Network (NNN)
Special Interest Group on Computer Science Education (Association for Computing Machinery) (SIGCSE)

About the SISL in STEM initiative

This initiative leverages the influence of eleven STEM disciplinary societies as the professional voices of their disciplines to contextualize STEM teaching and learning in terms of 21st-century sustainability challenges. Along with Mobilizing STEM Education for a Sustainable Future and the Disciplinary Associations Network for Sustainability, Project Kaleidoscope is enabling and supporting the partner societies in using sustainability to underpin their programs, policies, and member activities. The initiative will host a convocation at the National Academy of Sciences on September 19 and 20, 2013, to widen the circle of involved societies beyond STEM and to plan for sustaining this work in the long term.

Over fifty members of the partner societies are working in six project teams that focus on the following topics:

1) Developing and seeking endorsement of common language about the importance of and commitment to education for a sustainable future;
2) Gathering and disseminating resources to support the infusion of sustainability into teaching and learning;
3) Implementing interdisciplinary, problem-based professional development workshops based on real-world societal challenges;
4) Developing public policy recommendations to include sustainability themes in STEM education and establishing pathways for civic engagement for society members and their students;
5) Conducting audience research to refine the messages of the initiative and to guide communication about sustainability with educators and others; and
6) Developing content for textbooks and online resources to infuse sustainability into introductory STEM courses and improve publisher/author inclusion of learning activities about sustainability challenges and problem solving.

To learn more about the initiative and its available resources, visit http://www.aacu.org/pkal/sisl